

CLAIMS

1. A method for the extraction of hydrophobic constituents, such as benzene, toluene, xylene and/or chlorinated hydrocarbons, from an aqueous solution, involving the steps of:

a. contacting said solution with a porous, preferably dimensionally stable granular or powdery material, of which the pores have a size of from 0.1 to 50 μm and contain a hydrophobic substance with affinity for the hydrophobic constituents to be extracted, which granular or powdery material has a particle size of from 0.1 to 10 mm, and is wetted more readily by the hydrophobic substance immobilized in the pores than by the aqueous solution to be treated, and

b. regenerating the product of step a), essentially without the granular or powdery material being freed from the hydrophobic substance, by removal of the hydrophobic constituents.

2. A method according to claim 14, wherein steam is used in step b) to remove the hydrophobic constituents.

3. A method according to claim 1, wherein steps a) and b) are repeated.

4. A method according to claim 1, wherein the pore size of the porous, preferably dimensionally stable granular or powdery material is from 0.2 to 15 μm .

5. A method according to claim 1, wherein the immobilized hydrophobic substance is a polymer which swells in the hydrophobic constituents to be extracted.
6. A method according to claim 1, wherein the immobilized substance is polystyrene.
7. A method according to claim 1, wherein the immobilized substance is a liquid.
8. A method according to claim 1, wherein the immobilized substance is a glycerol ester of one or more optionally unsaturated fatty acids:
9. A method according to claim 1, wherein the immobilized glycerol ester is soybean oil and/or castor oil.
10. A method according to claim 1, wherein the porous material is a polyolefin.
11. A method according to claim 1, wherein the porous material is polypropylene.
12. A method according to claim 1, wherein the porous material was obtained by dissolving a polymer in a solvent with heating, cooling the solution, and reducing the solidified mass mechanically if so desired.
13. A method according to claim 1, wherein the polymer is polypropylene and the solvent is soybean oil and/or castor oil.